REMARKS

The following remarks are submitted in response to the Office Action mailed May 21, 2003, within the 3 month shortened statutory period for response ending August 21, 2003. Reconsideration and allowance of all pending claims are respectfully requested. Claims 1-39 were rejected and remain pending. Claim 1 has been amended to correct a typographical error in the spelling of the word "portion."

Claims 1-9, 16-25, 32-35, 37-39 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,662,621 to Lafontaine (hereinafter "Lafontaine"). Applicants respectfully traverse this rejection, to the extent that it is maintained.

Independent claim 1 recites a variable stiffness guide wire including a guide wire shaft, and a polymeric member disposed on the distal portion of the shaft. The polymeric member has a first flexibility at a first temperature and a second flexibility at a second temperature, wherein the first temperature is less than the second temperature and the first flexibility is less than the second flexibility. The guide wire further includes a heat source disposed on the distal portion of the shaft, the heat source being in thermal communication with the polymeric member. Activation of the heat source causes the polymeric member to rise from the first temperature to the second temperature to thereby change the flexibility of the distal portion of the guide wire.

Lafontaine does not teach or suggest a variable stiffness guide wire including the claimed structure that allows for a polymeric member of a guide wire to rise from a first temperature to a second temperature to thereby change the flexibility of the distal portion of the guide wire. A change in the shape of a guide wire, as disclosed in Lafontaine, does not equate to a change in flexibility of the guide wire, as claimed.

Independent claim 16 is directed to a variable stiffness guide wire including a guide wire shaft, and a polymeric member disposed on the distal portion of the shaft. The guide wire further includes a heat source in thermal communication with the polymeric member, whereby activation of the heat source causes the polymeric member to change the flexibility of the distal portion of the guide wire shaft.

Lafontaine does not disclose a variable stiffness guide wire including the claimed structure that allows for a polymeric member of the guide wire to change the flexibility of the distal portion of the guide wire shaft. Similar to that indicated above, a change in the shape of

a guide wire, as disclosed in Lafontaine, does not equate to a change in flexibility characteristics of the guide wire shaft, as claimed.

Independent claim 32 recites a variable stiffness guide wire system including a guide wire including a distal portion having a flexibility, a distal polymeric member, and a heat source in thermal communication with the polymeric member. The system also includes a power supply connected to the heat source. Activation of the heat source by the power supply causes the polymeric member to change the flexibility of the distal portion of the guide wire.

Again, Lafontaine does not disclose a variable stiffness guide wire system including the claimed structure that allows the activation of a heat source by a power supply that causes a polymeric member to change the flexibility of the distal portion of the guide wire. A change in the shape of a guide wire, as disclosed in Lafontaine, does not equate to a change in flexibility characteristics of the guide wire, as claimed.

Independent claim 33 recites a method of using a variable stiffness guide wire. A guide wire is provided including a distal portion having a flexibility, a distal polymeric member, and a heat source in thermal communication with the polymeric member. The method also includes changing the flexibility of the distal portion of the guide wire by activating or deactivating the heat source.

Again, Lafontaine does not disclose a method of using a variable stiffness guide wire system that includes providing the claimed guide wire structure, and changing the flexibility of the distal portion of the guide wire by activating or deactivating the heat source. Again, the change in the shape of a guide wire, as disclosed in Lafontaine, does not equate to changing the flexibility of the distal portion of the guide wire, as claimed.

In view of the above remarks, Applicants respectfully assert that independent claims 1, 16, 32 and 33 are not anticipated, nor rendered obvious by Lafontaine. Because independent claims 1, 16, 32 and 33 are not anticipated nor rendered obvious by Lafontaine, dependent claims 8-9, 17-25, 34, 35 and 37-39 are also not anticipated nor rendered obvious.

Claims 10-13 and 26-29 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lafontaine in view of U.S. Patent No. 5,531,685 to Hemmer et al. (hereinafter "Hemmer et al."). Applicants respectfully traverse this rejection, to the extent that it is maintained. Claims 10-13 are dependent from claim 1, and claims 26-29 are dependent from claim 16.

As discussed above regarding independent claims 1 and 16, Lafontaine does not disclose a variable stiffness guide wire including the claimed structure that allows for a polymeric member of the guide wire to change the flexibility of the distal portion of the guide wire or guide wire shaft. Hemmer et al. does not cure the deficiency of Lafontaine. Like Lafontaine, Hemmer et al. does not disclose the claimed structure that allows for a polymeric member of the guide wire to change the flexibility of the distal portion of the guide wire or guide wire shaft. Thus, neither Lafontaine nor Hemmer et al., alone or in combination, disclose the claimed variable stiffness guide wire. Therefore, Applicants respectfully submit that independent claims 1 and 16 are not obvious under Lafontaine in view of Hemmer et al., and that dependent claims 10-13 and 26-29 are therefore also not obvious.

In view of the foregoing, pending claims 1-39 are believed to be in condition for allowance. Reconsideration and notification of allowance is respectfully requested. If the Examiner would like to discuss the application or its examination in any way, please call the undersigned attorney at (612) 677-5060.

Respectfully submitted,
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By their attorney,

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